

Docket Number: 10981988-3
Application No. 10/643,264
Amendment A

REMARKS/ARGUMENTS

Claims 1 - 8 are in the application.

Patentability of Claims

The original versions of independent claims 1 and 5 stand rejected as anticipated by Sugitani et al, US Patent No. 4,558,333.

Sugitani discloses a way of making a recording head that includes laminating a dry photoresist film 3 on a substrate surface. The film is apparently rolled across the substrate at a certain rate of speed (4 feet/minute) and under a selected pressure (0.5 to 1.3 Kg/cm²).¹ That layer 1 is then patterned, exposed, and partly dissolved as described in Sugitani to produce the intermediate product that appears in Fig. 4 of Sugitani.

The intermediate product of Sugitani includes recesses in the layer 3H resulting for the parts of that layer that were dissolved away. These recesses are designated liquid pathway regions by Sugitani, and the office action likens the recesses to the claimed firing chamber.

After the first film is laminated, exposed and developed, another film of dry photoresist is then laminated to the surface of the first layer 3H. Sugitani states that "*In this step, particular care to be taken in further lamination of the dry film photoresist on the hardened resist film 3H is (sic) to prevent the photoresist 5 from sagging toward the liquid pathway groove...*"² To prevent such sagging, Sugitani specifies a relatively low lamination pressure to be applied to the second dry film photoresist layer.

Claims 1 and 5 recite "depositing a second layer of the first dielectric material." This is different than "further lamination of the dry film photoresist on the hardened resist film 3H" as disclosed by Sugitani. Applicants respectfully submit that a dry film cannot be deposited, as recited in claims 1 and 5. Accordingly, claims 1, 5, and the claims depending therefrom are believed to be in condition for allowance.

Claims 2-4 and 6-8 stand rejected as being unpatentable by Sugitani et al. in view of Hawkins et al., U.S. Patent No. 5,738,799, and further in view of Micromachined Transducers Sourcebook (pages 78-79).

Claims 2-4 depend from claim 1 and claims 6-8 depend from claim 5, as such both sets of claims are allowable for at least the same reasons as stated with respect to claims 1 and 5.

¹ Column 4, lines 1 - 8 of Sugitani.

² Column 4, lines 61 - 68 of Sugitani.

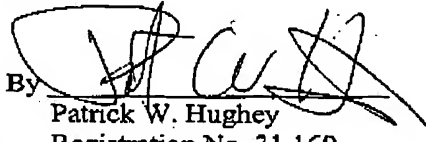
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In addition, Applicants respectfully traverse the assertions made on page 4 of the office action that conclude, in effect, that it would be obvious to use PECVD deposition of the second layer of Sugitani over the intermediate product shown in Fig. 4 of that reference. It is not clear how, without a significant redesign of the entire Sugitani process, such deposition could occur without filling Sugitani's liquid pathways with second-layer material. Accordingly, Applicants submit that Sugitani cannot be combined with Hawkins or any other reference of record to arrive at a proper *prima facie* case of obviousness.

Conclusion

In view of the foregoing, Applicants believe that all of the currently pending claims are in condition for allowance, and an early notification to that effect is respectfully requested. If the Examiner has any questions, he is invited to contact Applicants' attorney at the below-listed telephone number.

Respectfully submitted,
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